

[Please replace the paragraph beginning on line 28 of page 5 with the following paragraph.

At each hop along the way normal routing tables are used to determine the next hop. For the final hop from the access point to the virtual end node device, this is also true. The receiving physical end node devices receiving the RF packet decode the data field to find the destination ID in field 52. They compare this with their own ID. If there is a match, they accept the packet and process it, otherwise they ignore it.

[IN THE CLAIMS:

Cancel claims 1-20, without prejudice or disclaimer.

Add the following new claims 21-29:

21. (new) A method for sending an IP packet to a physical end node in an RF network comprising the steps of:
creating the IP packet comprising:
a virtual Internet protocol address corresponding to a plurality of physical end nodes served by an access point; and
a data field comprising:
a destination identification corresponding to one of the physical end nodes of the plurality of physical end nodes that is the destination for the packet; and

user data;
sending the IP packet over the RF network to the access point;
transmitting, by the access point, the IP packet;
decoding, by the plurality of physical end nodes, the data field of the IP packet; and
determining by each of the plurality of physical end nodes whether it is the destination for the IP packet.

22. (new) The method of claim 2 wherein the step of determining is accomplished by each of the physical end nodes comparing their own identity with the destination identification in the user data of the IP packet.

23. (new) The method of claim 1 further comprising the step of:

processing the IP packet by the physical end node that is the destination for the IP packet.

24. (new) The method of claim 1 further comprising:
determining by the plurality of physical end nodes that are not the destination of the packet that the IP packet is not for them.

25. (new) The method of claim 4 further comprising:
ignoring the IP packet by the physical end nodes that are not the destination of the packet.

26. (new) The method of claim 1 wherein the step of sending is accomplished by using Internet Protocol routing.

27. (new) The method of claim 1 wherein the step of transmitting by the access point is transmitting by the access point via a wireless link.

28. (new) A RF network comprising:

a wired network;

a first access point connected to a wired network and operable for communication via a wireless link; and

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Added a first plurality of physical end nodes communicating with the first access point via the wireless link, sharing a first virtual internet protocol address and having separate identifications.

29. (new) The RF network of claim 9 further comprising:

a second access point connected to the wired network and operable to communication over a second wireless link; and

a second plurality of physical end nodes communicating with the second access point via the second wireless link, sharing a second virtual internet protocol address and having separate identifications.